



"Mtem" is the primordial Stuff out of which
the universe emerged

NOVEMBER 1983
VOL. 3 ISSUE 4

process

Tom Kline 1983

co-sponsored by stanford computer arts society

robert mckim: "asking fruitful questions"

emily dubois: "woven music", starring the loom and the player piano

zev pressman: "wet paint", a film

kevin o'farrell: "bionics: learning from natural structures"

free - open to all - bring friends - bring art to share

forum room, meyer library, stanford

for directions, see calendar on next page.

december 3

2-5:30

CALENDAR

- Thru
November 17
COMPUTER ART BY TEAM MEMBER LOE BORDO will be shown at Hixman-Barros in San Francisco.
- November 11-
January 29
BRITISH NOLOGRAPHY show at the Holms Gallery at 1797 Haight St. in San Francisco.
- November
17 - 18
MODERN SURGICAL TECHNOLOGY, an operating room with its hardware, will be set up at the Exploratorium. The public may handle the various devices, 3601 Lyon St., San Francisco.
- November 13
thru
December 10
BOOKS AND WOOD EXHIBIT at Anna Gardner Gallery. Includes work by TEAM member Norman Herrick. 3445 Shoreline HWY, Sausalito Beach, Mon-Fri/Sat/Sun, 1-5 pm, or by appointment. Call 848-8761.
- November
14 - 18
APPLIED INTERACTIVE COMPUTER GRAPHICS COURSE in Los Angeles features Dr. James Foley and Eliza Kopp. Fee \$795. Information: Continuing Education Institute, 10889 Wilshire Blvd., Suite 1000, Los Angeles 90024.
- November 14 -
January 8
TEXTILES BY MEMBER VERONICA BEALIS are featured in a three person show at Twin Pines Cultural Center, 1219 Alston, Belmont.
- November
17 - 19
ELECTRICITY EXHIBITS CONFERENCE at Exploratorium, 3601 Lyon, San Francisco. Scientists, artists, and museum workers will explore ways to build effective new exhibits. Info: 563-7337.
- November 23 -
January 1
'PHOTOGRAPHY THROUGH THE MICROSCOPE' at the Exploratorium, 3601 Lyon St. in San Francisco.
- ★
December 3
2-5:30
"NOCTIS" - TEAM MEETING, Four Aces, Meyer Library, first floor. Enter campus at Dwyer Station, park in Hoover Lane area. Follow Team sign from Meaver Tower to Meyer Library, a tall structure 2 buildings behind H. Stanford's Christmas Crafts Fair will occur the same day by Twinkl Union, so plan to come early and shop (and plan NOT to park near it)
- December 9
thru
January 8
THREE IN ONE: LIGHT, STRUCTURE, AND MOTION at Olive Hyde Gallery features interactive exhibits including pieces by TEAM artists Gertrude Myrrh Neegan and Don Lloyd. 123 Washington Blvd. at Mission Blvd., Fremont.
- ★
December 10
TEAM FIELD TRIP AND SERVICE PARTY. The Tree Circus in Santa Cruz county. Eizarre! Ectacular! Eloquent! Lovely! Trees with trunks and branches bent into lattices, hearts, knots and spirals. Meet 10:30 am in Santa Cruz at Greyhound Depot, 425 Front St. with cameras, drawing materials. Lunch in Santa Cruz. Fee: \$10 - includes donation to Tree Circus that is trying to save the trees. Reservations, bus schedule, car pool info. call Shoshana Debiner at 221-1992. (weather permitting)
- December 17 -
February 15
VARIATIONS ON A THEME, art by TEAM member Scott Sia, will be shown at Department of Committee and Sciences, Stanford (in the lower quad).

OPPORTUNITIES

- November 10
COLLEGE & HIGH SCHOOL STUDENTS - computer art sought for CISE conference juried show in January. Mail to Nancy Carter, Art Dept., CISE INTERNATIONAL GRAPHICS EXHIBIT, S.J.S.U., One Washington Square, San Jose, CA 95192.
- Deadline
November 25
ARTS in any media - all works exhibited. Size limit 8"x10". No returns. Presentation to all participants. Send entries to: Silvera Works, 214 Travis, Houston, TX 77002; (713)223-8366.
- Deadline
December 10
GRANTS for work that advances higher education through video or television sponsored by Amnberg Corporation for Public Broadcasting Project. For guidelines: Amnberg/CPB Project, 1111 18th St. NW, Washington D.C. 20036.
- Now
LET THERE BE LIGHT, a holiday festival, will include crafts and performances show. Lasers and multimedia and etc. Performers will be paid. Time members interested in performing contact Louis Brill at 444-8494 (9-10 on best time). Everyone else should plan to be at the Civic Auditorium to see the exciting festivities on December 9-11.
- Now
RESTAURANT WANTS ART. Equide, at 97 Sullister, wants mixed art, maximum size 16"x20" vertical. Will consider video and laser. Contact Michael Shanchak, 60-6 Woodward St., San Francisco, CA 94133, 421-8127.
- Now
THE HORN GALLERY, 935 Loring, Crockett, CA 94529, is looking for artists to show. Info call Malina Barros at 787-2527.
- Now
YOUR SKILLS MAY BE IN DEMAND at San Francisco School of the Arts Foundation. This brings working artists into the classes at the Arts High School in San Francisco. The program is in its 2nd year. Phone 448-7888 and ask for Fred Rosenbergs or Ann Wettrich. Also ask about students helping you with your work for much study credit. (The latter works with other schools and colleges as well.)
- Now
VIACOM 10, local Northbay cable channel, seeks music videos of all types for proposed new program. Contact Viacom 30, PO Box 3799, San Rafael, CA 94912 or Michael Freeman at 459-5260.
- Now
FIND OUT ABOUT LINKS OF COMPUTERS IN NERVEN WARFARE and help educate the public. Computer Professionals for Social Responsibility has chapters in the East Bay, Palo Alto, San Jose, Hastings Monthly, Also Boston, Madison, UT, and Seattle. Info: CPSSR, PO Box 717, Palo Alto, CA 94301.

RESOURCE LIST

by Trudy Myrth Eagan and Julian Brown

SENTNALL, J.	Science and Technology in Art Today	New York; Praeger; '72
CRITCHLOW, K.**	Order in Space	London; Thames&Hudson; ('65) '69
D'ARSELOFF, N.*	Designing with Natural Forms	London; B.T. Batsford; '73; '74
SHAMBLICH, D.G.**	Constructive Geometry-Morphology	Seattle; Univ. of Washington; ('67) '70
FULLER, R.B.**	Synergetics	London & New York; MacMillan; '75
KANDINSKY, W.***	Concerning the Spiritual in Art	New York; Wittenborn; many print'gs original - 1912
KEPES, G.***	The New Landscape in Art and Science Editor- Vision plus Value Series	Chicago; Paul Theobald; 1st ed. 1956 New York; Geo. Braziller; '65 thru'72
LOSS, J.*	What is It?	New York; Doubleday; '74
PIAGET, J.***	Structuralism	New York; Harper&Row; '70
RICKEY, G.	Constructivism	New York; Geo. Braziller; '67
STEVENS, P.S.	Patterns in Nature	Boston; Little, Brown-Atlantic Monthly Press; '74
THOMPSON, D'Arcy***	On Growth and Form	London & New York; Cambridge Univ. Press; '89; original - 1917
WHYTE, L.L.***	Aspects of Form	Bloomington & London; Indiana Univ. Press; '66; several printings; orig. 1951 Moraga, Calif; Eudeamon Press; '72
WILLIAMS, R.**	Natural Structures	
WOLBERG, B. & L.*	Zoning in-Photographic Discoveries under the Microscope	New York; Harcourt Brace; '74

* - suitable for children

** - related to geometry and structure

*** - historically important/basic reading

Key Words

structure, structuralism
morphology, morphic, biomorphic
process, formative process, modularity/hierarchy, transformation, system
and information interdependencies, integrative

The keeper of samples for the architectural firm of Skidmore, Owings, Merrill (yarn, fabric, granite, glass, etc.) will give advice about where to obtain materials for big commissions, or help set up a similar resource library for design firms, says contributor Marsha Nygaard. Contact Jon Hedden, 394 Valencia #5, San Francisco 94110, (415) 431-2341.

"Computer Animation as an Aid to Comprehending the Universe", Computers and Imagination, Pergamon Press, Oxford, 1981, by Kenneth Knowlton.

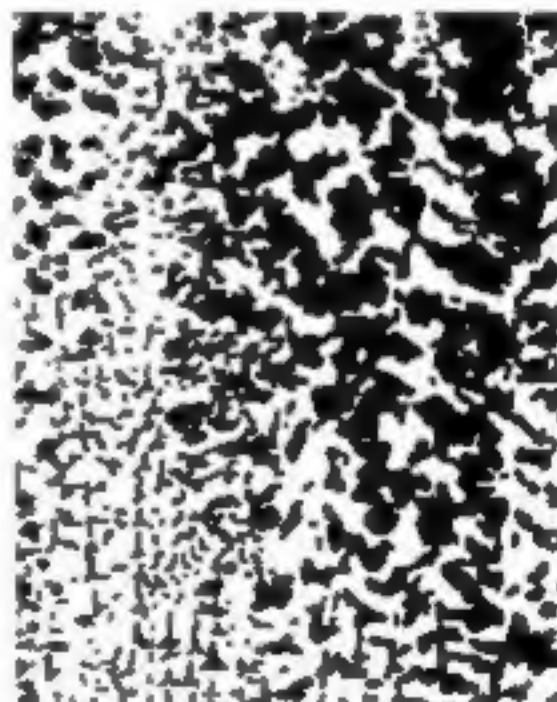
The Human Body, Jonathan Miller (*of The Body in Question*) with 3-D reversible illustrations showing the workings of the human body designed by David Peleman. (*Oh my god, they pop out!*) Viking, N.Y. \$16.95 *Just out!*

Cymatics, Herta and Paul Amirani - explores such matters as how rhythm and vibration determine structure. Good illustrations. Birkbeck Press AG, Basel, Switzerland, 1967

Dynamics, The Geometry of Behavior, Abraham and Shaw attempts to teach advanced mathematical concepts visually. Color diagrams; animated disk available. Vol. I, Periodic Behavior, and Vol. II, Chaotic Behavior, are now available from Ariel Press, P.O. Box 1360, Santa Cruz CA 95061. Vol. I is \$25, Vol. II and disk, \$15.

The Mind's Best Work, D.N. Perkins, on creativity. Harvard, 1981, \$18.50.

Exploratorium Publications, a catalog listing of exhibit catalogs, "recipes" for making displays and demonstrations, and the Exploratorium Magazine. Exploratorium Store, 3601 Lyon St., San Francisco, CA 94123, (415) 563-7337.



MEMBERS IN THE NEWS

At a National Endowment for the Arts Conference held in New Orleans about art in the schools, Ruth Aggus was included on a panel and spoke on the role of artists in the educational program. She also reports that the state of California is studying the idea of setting up perhaps three "Arts Summer Schools" for promising students. In addition she says that NASA and NEA are studying what artists can do for the space program.

An article by Dirmer Tobiasch about the connections between geological sciences and visual art will be published in volume 14, number 4 issue of Leonardo. The magazine should be out in December.

Eddie Oshing spoke on behalf of Yuri Orlov on a panel of The American Society Cybernetics about Ethical Imperative in the World Community of Scientists. Oshing just received the sixth scientific paper by Orlov, almost 50 pages in Russian, that was smuggled out of prison camp.

Help wanted

Anyone knowing how to formulate chemicals that form crystals as they are being viewed in a slide projector with polarized light, please call Trudy Myrrh Reagan. She and her friends will try the technique and report in a future newsletter.

MAILING LIST UPDATE

Address Changes

David Neuman
PO Box 1285
Rockefeller St.
New York, NY 10108
(212)758-1989
conceptual art, drawing,
computer art

Lauree Molnar
Frank Dietrich
628 Flint Ave.
Long Beach, CA 90814
(714) 488-0873

Betya Friedman
Ep. in Science & Math
U.C. Berkeley
Berkeley, CA 94720

Michael Steyke
P.O. Box 1208
San Rafael, CA 94912
415-4508

Essell Neeson
YMC D-214
Olympia, WA 98505

New Members

Kilton & Sylvia Van Dyke
506 Campus Drive
Sanford, CA 94302
319-0184 (home)
497-2442 (work)
fluid dynamics

Vernon Reed
4407 Sinclair Ave.
Austin, TX 78756
(512)454-7987
animated LCD jewelry

Bill Manderson
24764 Sequel Road
Los Gatos, CA 95030
(408)353-1473
airbrush painting,
space architecture
computer graphics

Frank Guyre
1474 Fields Drive
San Jose, CA 95129

Christa Schubert
2924 Ladoga St.
Long Beach, CA 90815

Natasha Eysgaard
1441 Church St.
San Francisco, CA 94131
705-8222
conceptual art

Michael Fisher
PO Box 3568
Berkeley, CA 94703

Melody Trapp
35 Aliso Way
Portola Valley, CA 94025
924-8743
painting, symbolic design,
computers, visual thinking

Sam Covell
2900 Stobbs St.
San Jose, CA 95128
(408)275-9515
(408)727-5588
sculpture, computer
graphics, technology

Dale K. Scott
PO Box 32537
San Francisco, CA 94131
447-1127
laser, laser etching
& cutting, robotics

Victor Acevedo
PO Box 594
Monterey Park, CA 91754
(714)389-7228
interdisciplinary research,
synergy, perceptual
phenomena, polyhedra

Sabine Frank
1780 Alleton Way
Berkeley, CA 94702
845-3378

Ralph Stapschurst
922 McBeer Ave.
Fetaluma, CA 94922
(707)763-9218

Shelley Ann Graham
241 Bonita Road
Portola Valley, CA 94025
651-1847

Lee Deane
348 Crocker
Berkeley, CA 94704
computer art

Dr. Kenneth Hunter
810 Gonzalez Drive, 10P
San Francisco, CA 94133
447-7382
computer music

Susan L. Van Boerle
14874 Pennsylvania Ave
Columbus, OH 43201
(614)431-1205
computer graphics research

Isaac Victor Serlov
24 Gramercy Park South
New York, NY 10003
computer art

Ann Shiner Jones
174 Levant
San Francisco, CA 94114
861-8326
computer graphics,
photography

Shawn Patton
PO Box 784
Pt. Reyes Station, CA 94954
visionary art (mandalas
& animation)

George Walton
28 Croywood Ave.
San Francisco, CA 94114
464-4919

Stephen Seruch
c/o EPRI
PO Box 10417
Palo Alto, CA 94303
655-8912 (work)

Jeffrey Parrino
3685 17th St.
San Francisco, CA 94114
431-9567

Jennie Warwick
91 Baywood
San Mateo, CA 94402
342-2973
textile art, natural
materials, fiber arts

ABOUT THE ARTISTS

Scott Kim is in the process of inventing a PhD at Stanford called "Computers and Graphic Design," being a search for new visual metaphors on which to base computer interfaces. In school, he has been playing with computer typography, music, and mathematics. Outside of school he has been working with symmetrical calligraphy, polyhedra, education video games, and other synaesthetic imagination twisters.

The lettering for this month's *Ylem* cover comes from exploring new ways of relating the meaning and writing of a word. In this case, "process" is being viewed not as a static word, but as a single shape changing from one form into another. Other of Scott's designs, including his book *Inversions*, are being made available through Look Twice, Box 50697, Palo Alto, CA 94303. Look Twice is now in the process of producing its first catalog.

Kenneth Knowlton studied engineering at Cornell and MIT. After graduation he spent 20 years working at Bell Labs in New Jersey and then he moved to SRI in Palo Alto. Now Knowlton works at Via Video in Santa Clara.

Over the course of his career, Knowlton has invented six computer languages and various hardware ideas including a telephone with sign language recognition for the deaf.

He has explored the computer as a tool for art from many different angles, one of the most important of which has been computer animation. For his films, he has collaborated with such people as Stan Vanderbeck, Lillian Schwartz and Emanuel Ghent.

About the Groucho piece, Knowlton says, "In making pictures out of dominos, my purpose is to make things which are intriguing both perceptually and intellectually. Perceptually because at close range you don't see the picture nearly as well as from far away. In fact the portrait may not even be recognizable. This is quite the opposite of the generally held notion that by getting closer to something you see it better.

"Intellectually, because of the severe constraints I have chosen. If I had chosen to cannibalize any number of sets of dominos to get just the ones which a particular picture seems to call for, or if I were to cut the dominos in half, to use the ends with lots of spots where the picture is light, etc., it would be a simple matter. But, choosing as I do to use all of the dominos of exactly four sets, without cutting them, makes it an interesting problem. I have programmed a computer to produce an optimal plan for each case. I leave it to you to ponder just what I am asking the computer to do."

In spite of his involvement with computer graphics as a visual tool, he remains a skeptic about whether the products of such work qualifies as art. Indeed, "what is art?" is a question that fascinates him.



"Groucho", c 1982, Ken Knowlton

Varonica Bialik returned to school to study art after her two children had grown, first to the College of Notre Dame, Belmont, then to the Rudolph Schaeffer School of Design, San Francisco. The latter emphasized the fundamentals of color and design at a time when other schools were ignoring it. Also it was here that she met Wayne Davis, who predicted that she would get hooked on silk screening which she thought was absurd.

"I thought that was ridiculous. I hated serigraphy, with its toxic solvents. But it turns out that what he was doing with water-based dyes on cloth was very easy on me," she recalls.

Bialik set up a joint studio with Wayne in 1978. Her engineer-sculptor husband built much of the hardware. She enjoys silkscreen because, after having worked out a design, she can make innumerable variations in color combinations and overlays. Besides her artwork, she also prints and dyes custom yardage for fashion designers and teaches color and 2-D design privately "to support her art habit."

About her work she says, "I enjoy abstracting visual textures from nature, rocks, cobwebs, feathers, dewdrops, and in this case the wisteria in my backyard. I took a picture, had a stat made, worked by hand with ink on paper from the stat in very large scale for screenprinting on fabric. Since I am now working in miniature pattern repeats, this new reduction of the wisteria print will produce a new series, either for screenprinting on paper or on fabric."

Works based on Bialik's wisteria patterns are included in her show at Twin Fines Art Center, Belmont. (see calendar)

SIGGRAPH, DIGICON CONFERENCE NOTES

by Eleanor Kant

SIGGRAPH held its 18th conference this July in Detroit for 20,000 people. During the five days there were seminars; technical sessions; 200 vendor exhibits; video, film and laser graphic shows; receptions; and an art show that was replicated in Tokyo and Avignon.

There was a stupefying amount of information on electronic systems, printers, plotters and photographic hardcopy machines at the vendors' exhibit hall. For the first time a seminar was given specifically for artists. The seminar was conducted by Susanna Molnar and Vibeke Korssen who assembled wonderful course notes. Other speakers were James Blinn, James Culver, Tom DeWitt, Frank Dietrich, David Sa, Darvy Garbary, Robert McCormick and Richard Taylor. They addressed many artists' questions directly; eg. how to get access to equipment, where to get training on the systems.

Seventy five artists were included in the art show. A highlight was Michael Haimoch and Ed Tannenbaum's "Computer Eyespew," a frosted dome about a foot in diameter which had a film loop of a winking digitized eye projected into it from the back. The effect was of a large eye watching the people looking at the art show in the gallery. The full color catalog has many reproductions and three essays by Catherine Richards, Gene Youngblood and Lucinda Furlong. 197 Iron Springs

DIGICON '83, International Conference on the Digital Arts sponsored by the University of British Columbia was held in Vancouver during August. For the 400 or so people who came there were presentations on both music and art, with slides, tapes and films of much recent work.

Many of the speakers who spoke at SIGGRAPH were able to go into more detail about problems special to artists and musicians using computers in their work. The vendor show was small, but exhibitors were able to spend more time explaining their products.

One highpoint was the concert given at the Queen Elizabeth playhouse. Of special interest at the concert was "Night Satellite Teleconcert" with music composed and played for the occasion on Fairlight CMI music computers by Jean Fitch in Vancouver, Osamu Shoji in Tokyo and Martie Wesley-Smith in Sydney. The concert was held simultaneously in three cities, joined together by satellite. At the conclusion applause from Australia and Japan could be heard over the microphones.

Another highlight was on the last day, a presentation of music, visuals and dance linked by computers. Working together were Robert Hoog and William Burton playing synthesizers, while Costance Ehrader danced using Jo Ann Gillesman's LED jewelry which Thomas DeWitt's Pentastation motion-tracking system used to draw images on a large video screen using Eric Podiatz' paint program. There was no score, they improvised. It was stunning.

From both conferences the message to musicians and artists is clear; make friends with a programmer. Also, as the equipment becomes more and more available it would be wise to learn how to program in order to make the systems do what you want them to do.

Vice Officers: President - Tracy Mark Sargent; Cor. Secretary - Lois Johnson, Executive Officer; Membership - Robin Sussman; Program - Deanne DeLorenzo; Newsletter Ed. - Louise Marie Tremere; Tax Penetration; Field Trip - Sheri-don O'Brien; "Yellow Pages" - Linda Bell.

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